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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/808,114	03/24/2004	Scott Ryan	035729-0103	4511
26371	7590	02/17/2006	EXAMINER	
FOLEY & LARDNER LLP 777 EAST WISCONSIN AVENUE SUITE 3800 MILWAUKEE, WI 53202-5308			REDDING, DAVID A	
			ART UNIT	PAPER NUMBER
			1744	

DATE MAILED: 02/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/808,114	RYAN, SCOTT	
	<b>Examiner</b>	<b>Art Unit</b>	
	David A. Redding	1744	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 December 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-81 is/are pending in the application.
- 4a) Of the above claim(s) 5-11, 14, 15, 20-22 and 36-39 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 12, 13, 16-19, 23-35, 40 and 66-81 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Election/Restrictions***

Applicant's election with traverse of claims 1-4,12,13,16-19,23-35,66-81 in the reply filed on 12/1/05 is acknowledged. This is not found persuasive because there was no grounds given for traversing the restriction.

The requirement is still deemed proper and is therefore made FINAL.

### ***Claim Objections***

Claim 33 is objected to because of the following informalities: claim 33 contains some grammatical errors. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3,17-19,23-26,28-31,33,34,40,71,73,74,79,80,81, are rejected under 35 U.S.C. 102(b) as being anticipated by USP 6,514,721 (Spurrell).

The claims specify a device for collecting viable gas-borne matter including spores comprising a substance which is configured to maintain viable matter in a living state without promoting growth of the viable matter. A review of the specification shows that a "substance" comprising a hydrocolloid (agar or alginate) between 1-20% and water between 5-50% would provide the claimed function.

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The Spurrell patent discloses an air sample for pathogens which comprises a cover (22) having an inlet which includes a perforated impact plate (24). Below the plate (24) is positioned a dish (20) which includes media (23) for the collection and support of pathogens. Below the dish (20) is a fan (16) for drawing air and any particulate through the inlet (22,24), over the surface of the media (23), and then around the dish (20) and through the fan (16). Below the fan is considered to be equivalent to the claimed outlet. The media is disclosed as being comprised of distilled water, water and agar, each comprising anywhere from 0% to 99.99% (col.4, lines 47-51). Thus if the hydrocolloid agar is within 1-20% and the water/distilled water is within 5-50%, the media of the Spurrell device which inherently maintain the viability without promoting growth, as claimed. Figure 4 shows the device with an additional cover (26) for limiting the amount of air. Figure 6 shows the device coupled to a sampling device.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 4,12,13, are rejected under 35 U.S.C. 103(a) as being unpatentable over USP 6,514,721 (Spurrell) in view of USP 4,038,057 (Roth).

Spurrell is silent as to a hydrocolloid and a nutrient. The Roth patent discloses a particulate air sampler having a collection plate consisting of agar and nutrients (col.3, line 65 thru col. 4, line 2). Accordingly, it would have been obvious to one skilled in the art to provide a nutrient to the media of the Spurrell media (23) in view of the known practice as disclosed in Roth. All nutrients added to the media of Spurrell would have some impact on the pH.

Claims 16,66-68 are rejected under 35 U.S.C. 103(a) as being unpatentable over USP 6,514,721 (Spurrell) and USP 4,038,057 (Roth), as applied to claim 13 and further in view USP 2004/0058428 (Perlman et al.).

Perlman et al. discloses a culture media for anthrax spores which includes a microbial hydrocolloid (Xanthan), anti-bacterial agents (lysozyme, EDTA, thallous acetate), anti-fungal agent (cycloheximide) and the addition of a protein nutrient in the form of beef heart broth (see page 1, paragraph #0008, #0010; page 2, paragraph # 0020).

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It would have been obvious to one skilled in the art to use xanthan as a gel for collecting the spores; for using a protein based nutrient in the media; and adding an anti-fungal agent into the media, in view of known practice for using such ingredients in a spore culture media as taught in Perlman et al.

Claim 70 is rejected under 35 U.S.C. 103(a) as being unpatentable over USP 6,514,721 (Spurrell) and USP 4,038,057 (Roth), as applied to claim 13 and further in view of USP 2004/0058428 (Perlman et al.) and USP 2003/0068777 (Nakano et al.).

Perlman et al. discloses the use of anti-biotics in a culture medium for spores. The Nakano et al. discloses the use of chloramphenicol as an anti-bacterial agent (page #3, paragraph #0034). Accordingly, it would have been obvious to provide chloramphenicol to the media in Spurrell in view of the known practice as disclosed in Perlman et al. and Nakano et al.

Claim 69 is rejected under 35 U.S.C. 103(a) as being unpatentable over USP 6,514,721 (Spurrell) and USP 4,038,057 (Roth) as applied to claim 13, and further in view of USP 2003/0207304 (Black et al.).

Black et al. discloses a support used as capture media for air-borne biological particles (including spores) which includes a humectant in the form of glycerol which is a polyol. Accordingly, it would have been obvious to one skilled in the art to provide the glycerol of Black et al. to the media in Spurrell in view of the known advantage of maintaining the viability of biological microorganisms in a capture device as disclosed in Black et al.

Claims 1-3,17,18,19,25-35,40,71,72,73,74,76,79,81, are rejected under 35 U.S.C. 103(a) as being unpatentable over USP 2002/0066321 (Lagraff et al.) in view of USP 6,406,906 (Herbig et al.)

Lagraff et al. discloses a device for collecting viable biological particles in the air onto a slide (16) having an adhesive media (20). The slide (16) with media (20) is equivalent to the claimed "plate" positioned between an inlet (top of 26) and outlet (30). The device (10) includes a rectangular-shaped inlet as claimed (figure 2). The reference is silent as to a substance which maintains the viability of the biological material without promoting growth. The Herbig et al. discloses a membrane for collecting biological viable material which includes an agar (polyvinyl alcohol or starch) at 4.6-5.6% and anti-bacterial compounds and humectants (inositol, betaine, lysine) for maintaining the viability. It would have been obvious to one skilled in the art to provide the membrane of Herbig et al. in place of the adhesive layer in Lagraff et al. in view of the known advantage of maintaining the viability of the biological material as taught in Herbig et al.

Regarding claim 76, the Herbig et al. patent also discloses that it is well known to include a nutrient into the media (col.1, lines 45-50). Accordingly, it would have been obvious to add a nutrient into the media provided in Herbig et al. in view of the known use.

Claim 27 specifies two inlets spaced at different locations from the plate. In re Harza, 274 F.2d 669, 124 USPQ 378 (CCPA 1960) the court held that mere duplication of parts has no patentable significance unless a new and unexpected result

is produced.). Accordingly, the added inlet is considered to be an obvious duplication of the single inlet of Lagraff et al.

Claim 75 is rejected under 35 U.S.C. 103(a) as being unpatentable over USP 6,514,721 (Spurrell) and USP 4,038,057 (Roth), as applied to claim 74 and further in view USP 2004/0058428 (Perlman et al.).

Perlman et al. discloses a culture media for anthrax spores which includes a microbial hydrocolloid (Xanthan), anti-bacterial agents (lysozyme, EDTA, thallous acetate), anti-fungal agent (cycloheximide) and the addition of a protein nutrient in the form of beef heart broth (see page 1, paragraph #0008, #0010; page 2, paragraph # 0020). It would have been obvious to one skilled in the art to use xanthan as a gel for collecting the spores; for using a protein based nutrient in the media; and adding an anti-fungal agent into the media, in view of known practice for using such ingredients in a spore culture media as taught in Perlman et al.

Claim 78 is rejected under 35 U.S.C. 103(a) as being unpatentable over USP 6,514,721 (Spurrell) and USP 4,038,057 (Roth), as applied to claim 74 and further in view USP 2004/0058428 (Perlman et al.). and USP 2003/0068777 (Nakano et al.).

Perlman et al. discloses the use of anti-biotics is a culture medium for spores. The Nakano et al. discloses the use of chloramphenicol as an anti-bacterial agent (page #3, paragraph #0034). Accordingly, it would have been obvious to provide chloramphenicol to the media in Spurrell in view of the known practice as disclosed in Perlman et al. and Nakano et al.



Claim 77 is rejected under 35 U.S.C. 103(a) as being unpatentable over USP 6,514,721 (Spurrell) and USP 4,038,057 (Roth), as applied to claim 74 and further in view of USP 2004/0058428 (Perlman et al.) and of USP 2003/0207304 (Black et al.).

Perlman et al. discloses a culture media for anthrax spores which includes a microbial hydrocolloid (Xanthan), anti-bacterial agents (lysozyme, EDTA, thallous acetate), anti-fungal agent (cycloheximide) and the addition of a protein nutrient in the form of beef heart broth (see page 1, paragraph #0008, #0010; page 2, paragraph #0020). It would have been obvious to one skilled in the art to use xanthan as a gel for collecting the spores; for using a protein based nutrient in the media; and adding an anti-fungal agent into the media, in view of known practice for using such ingredients in a spore culture media as taught in Perlman et al.

Black et al. discloses a support used as capture media for air-borne biological particles (including spores) which includes a humectant in the form of glycerol which is a polyol. Accordingly, it would have been obvious to one skilled in the art to provide the glycerol of Black et al. to the media in Spurrell in view of the known advantage of maintaining the viability of biological microorganisms in a capture device as disclosed in Black et al.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The US publication 2004/0185554 discloses a porous capture membrane comprised of a humectant on beads.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to David A. Redding whose telephone number is 571-272-1276. The examiner can normally be reached on Mon.-Fri. 6:00 - 3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on 571-272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



David A Redding  
Primary Examiner  
Art Unit 1744

DAR